



Solar technology - an industry of the future

The complexity of production processes in the manufacture of solar cells and systems is steadily increasing in parallel with growing demand. At the same time, the production costs for solar cells will have to fall in the coming years due to legal regulations.

Due to this situation, manufacturers are faced with the challenge of producing more efficiently in terms of throughput and costs. However, the costs for solar cell production plants are very high in terms of acquisition, operation and maintenance, so that they must be utilised as much as possible. Due to this fact, simulation is increasingly being used as a tool to support the planning and optimisation of such plants.

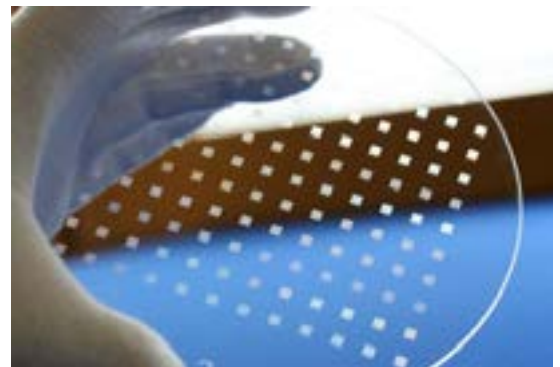
Based on the Siemens Plant Simulation software and a large number of successfully implemented simulation projects, SimPlan AG offers a building block kit to support the modelling of the following processes:

- Cell production using wafer technology,
- Module production and
- Manufacturing of thin-film solar cells.

This module box contains modules for modelling all process steps and the connecting conveyor technology between the systems. In particular, it contains modules for modelling the following sub-processes of cell production using both wafer and thin-film technology:

- Cleaning,
- Coating,
- Dotation
- Structuring,
- contacting and
- Passivation.

For module production, modules are provided for modelling the entire system from glass washing to performance measurement. Process steps such as film laying or string laying can be modelled in detail.



All modules have defined interfaces so that they can be flexibly coupled. They can also be extended to suit specific applications. General modules for data management, order generation and the evaluation of simulation runs are also provided.

Example projects in the solar industry

- Q.Cells
 - Advice on the selection of a simulation tool and the introduction of simulation
- Reis Robotics
 - Simulation of a solar panel manufacturing plant
 - Simulation of a module production plant
 - Simulation of a welding plant for the production of pressure vessels



SimPlan AG was founded in 1992 as a service provider for the simulation of operational processes. and today, with more than 120 employees, it is one of the leading German providers of simulation services.

Why SimPlan?

We are a cross-sector full-service provider for simulation, supporting companies from all sectors with extensive expertise in the analysis and optimisation of their business processes.

- Objective and independent analysis
- Detailed knowledge of logistics and production from over 30 years of project work
 - Development and use of standards
 - Permanent further development of Simulation topics through research and development

- Excellent resources for a quick response to your questions
- Close cooperation and project integration with a high on-site share
- Development of innovative solutions for Efficient processing of problems
- neutral distributor for simulation software
 - Support with software selection and introduction and training

Feel free to contact us

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